iPad Mini 2 LTE Left Speaker Replacement

Replace the left speaker in an iPad Mini 2 LTE.

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INTRODUCTION

Use this guide to replace a broken left-hand speaker in your iPad Mini 2 LTE.

TOOLS:

- iFixit Opening Picks set of 6 (1)
- iOpener (1)
- Phillips #00 Screwdriver (1)
- iFixit Opening Tools (1)
- Spudger (1)
- Tweezers (1)
- Suction Handle (1)

PARTS:

- iPad mini & mini 2 Adhesive Strips (1)

Step 1 — iOpener Heating





- We recommend that you clean your microwave before proceeding, as any nasty gunk on the bottom may end up stuck to the iOpener.

- Place the iOpener in the center of the microwave.
  - For carousel microwaves: Make sure the plate spins freely. If your iOpener gets stuck, it may overheat and burn.

Step 2



- Heat the iOpener for **thirty seconds**.
- Throughout the repair procedure, as the iOpener cools, reheat it in the microwave for an additional thirty seconds at a time.

⚠ Be careful not to overheat the iOpener during the repair. Overheating may cause the iOpener to burst.

⚠ Never touch the iOpener if it appears swollen.

⚠ If the iOpener is still too hot in the middle to touch, continue using it while waiting for it to cool down some more before reheating. A properly heated iOpener should stay warm for up to 10 minutes.

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Step 3



- Remove the iOpener from the microwave, holding it by one of the two flat ends to avoid the hot center.

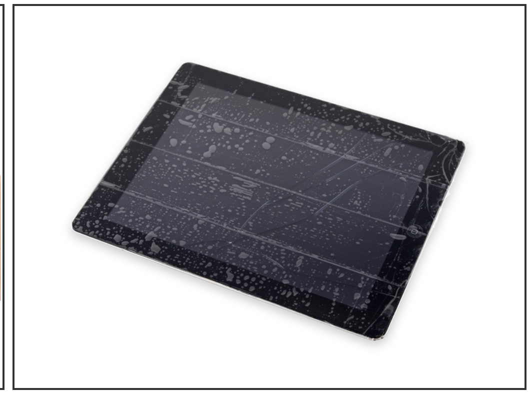
⚠ The iOpener will be very hot, so be careful when handling it. Use an oven mitt if necessary.

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Step 4 — LCD Shield Plate







- If your display glass is cracked, keep further breakage contained and prevent bodily harm during your repair by taping the glass.
- Lay overlapping strips of clear packing tape over the iPad's display until the whole face is covered.
  - This will keep glass shards contained and provide structural integrity when prying and lifting the display.
- Do your best to follow the rest of the guide as described. However, once the glass is broken, it will likely continue to crack as you work, and you may need to use a metal prying tool to scoop the glass out.

Wear safety glasses to protect your eyes, and be careful not to damage the LCD screen.

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Step 5



- Handling it by the tab, place the heated iOpener on the side of the iPad to the left of the home button assembly.
- Let the iOpener sit for about five minutes to soften the adhesive beneath the glass.

Step 6







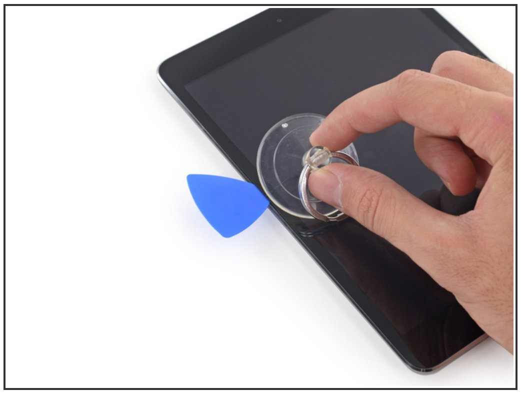
- Carefully place a suction cup halfway up the heated side.
  - Be sure the cup is completely flat on the screen to get a tight seal.
- While holding the iPad down with one hand, pull up on the suction cup to slightly separate the front panel glass from from the rear case.

⚠ Be careful to only lift the glass enough to insert an opening pick—any more and you risk cracking the glass.

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Step 7





- While holding the glass up with the suction cup, slide the point of an opening pick into the gap between the glass and body of the iPad.
  - Don't insert the opening pick any deeper than the black bezel on the side of the display. Inserting the pick too far may damage the LCD.
- Pull the suction cup's plastic nub to release the vacuum seal and remove the suction cup from the display assembly.

Step 8



- Reheat and reapply the iOpener.
  - Be careful not to overheat the iOpener during the repair procedure. Always wait at least ten minutes before reheating the iOpener.
- Let it rest for a few minutes to reheat the left edge of the iPad.

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Step 9





- Place a second opening pick alongside the first and slide the pick down along the edge of the iPad, releasing the adhesive as you go.

⚠ Throughout the rest of the procedure, if you encounter significant resistance to sliding picks beneath the glass, stop and reheat the section you're working on. Forcing the picks risks cracking the glass.

Step 10





- Continue moving the opening pick down the side of the display to release the adhesive.
- If the opening pick gets stuck in the adhesive, "roll" the pick along the side of the iPad, continuing to release the adhesive.

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Step 11





- Take the first pick you inserted and slide it up toward the top corner of the iPad.
- If you can see the tip of the opening pick through the front glass, don't panic—just pull the pick out a little bit. Most likely, everything will be fine, but try to avoid this as it may deposit adhesive on the front of the LCD that is difficult to clean off.

Step 12



- Reheat the iOpener and place it on the top edge of the iPad, over the front-facing camera.
  - Be careful not to overheat the iOpener during the repair procedure. Wait at least ten minutes before reheating the iOpener.
- If you have a flexible iOpener, you can bend it to heat both the upper left corner and the upper edge at the same time.

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Step 13

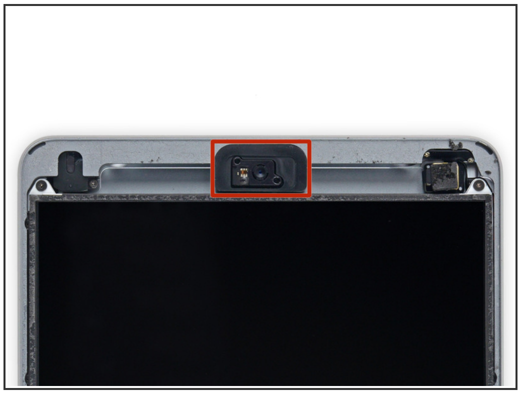




- Slide the opening pick around the top left corner of the iPad to separate the adhesive.

Step 14





- Slide the opening pick along the top edge of the iPad, stopping just before you reach the camera.

ⓘ The third image shows where the front-facing camera and housing are in the iPad.

⚠ Avoid sliding the opening pick over the front-facing camera, as you may smear adhesive onto the lens or damage the camera. The following steps will detail how to best avoid disturbing the front-facing camera.

Step 15





- Pull the pick out slightly, and slide the very tip gently along the top of the front-facing camera section of the top edge.

Step 16





- Leave the opening pick in the iPad slightly past the front-facing camera.
- Take a second pick and insert it to the left of the camera, where the first pick just was. Slide it back to the corner to completely cut any remaining adhesive.
- Leave the second pick in place to prevent the corner adhesive from re-sealing as it cools.

Step 17





- Insert the previous pick deeper into the iPad and slide it away from the camera toward the corner.

Step 18



- Leave the three picks in the corners of the iPad to prevent re-adhering of the front panel adhesive.
- Reheat the iOpener and place it on the remaining long side of the iPad—along the volume and lock buttons.

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Step 19




- Slide the top right opening pick around the corner to fully release the top edge of the glass.

ⓘ Leave this pick in place to keep the adhesive from re-sealing itself, and grab a new pick for the next step.

Step 20





- Insert a new opening pick and slide it to the middle of the right edge of the iPad, releasing the adhesive as you go.

Step 21







- Continue to slide the pick down the right edge of the iPad, releasing the adhesive.

Step 22



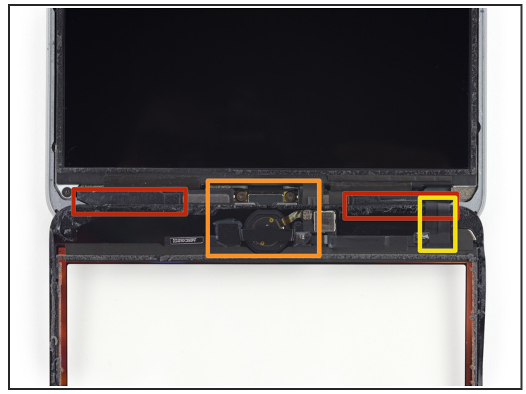
- Leave the opening picks in place and reheat the iOpener.
  - ⚠ Remember not to overheat the iOpener—no more than once every ten minutes.
- Set the reheated iOpener on the home button end of the iPad and let it rest for a few minutes to soften the adhesive beneath the glass.

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Step 23







- Slide the lower left pick to the lower left corner to cut the adhesive on that corner.
- Leave the pick at the corner. Do not pry any farther, and do not remove the pick from the iPad.
- There are quite a few things to avoid beneath the lower bezel, so study the third image closely:
  - Antennas
  - Home button cavity
  - Digitizer cable
- The following steps will direct you where to pry to avoid damage to these components. Only apply heat and pry where directed.

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Step 24





- Leave the pick from the last step in place to prevent the adhesive from re-sealing.

- With a new pick, slice gently over the left-hand antenna, stopping before the home button.
  - Only slide the pick from the outer edge toward the center of the iPad. Do not move the pick back toward the outer edge, as moving in this direction may damage the antenna.
  - If you need to slide the pick over the lower section more than once, remove it and re-insert at the outer edge, and slide inwards.

- Leave the pick in place before moving on.

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Step 25





- Insert the tip of one last pick next to the previous step's pick, and slide it beneath the home button.

⚠ Stop about an inch from the right-hand side to avoid cutting the digitizer cable.

- Insert the pick slightly deeper and work it back toward the home button.

⚠ Again, be sure to only slide the pick toward the center of the iPad when it is fully inserted; otherwise you may damage the antenna beneath the glass.

Step 26



- Reheat and reapply the iOpener to the top bezel of the iPad.

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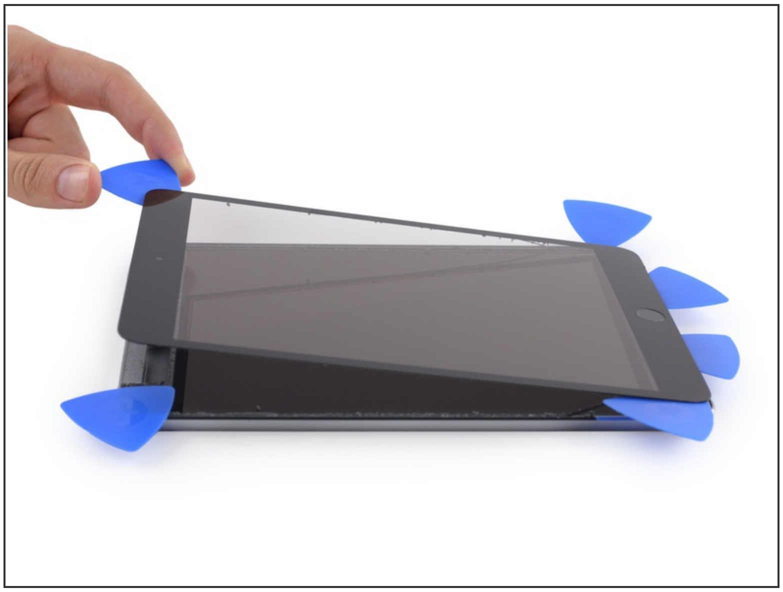
Step 27




- ⚠ Be very careful with this step. Take your time and ensure the adhesive is hot and soft, and that you've been through all of the adhesive with an opening pick. Don't be afraid to stop and reheat.
- At the top of the iPad opposite the home button, you should have a pick lodged into each corner. Twist the picks to lift the glass slightly, separating the last of the adhesive along all four edges.
- ⚠ If you encounter a significant amount of resistance, stop twisting. Leave the picks in place, reheat, and reapply the iOpener to the problem areas, and run a pick through the sticking point one more time.

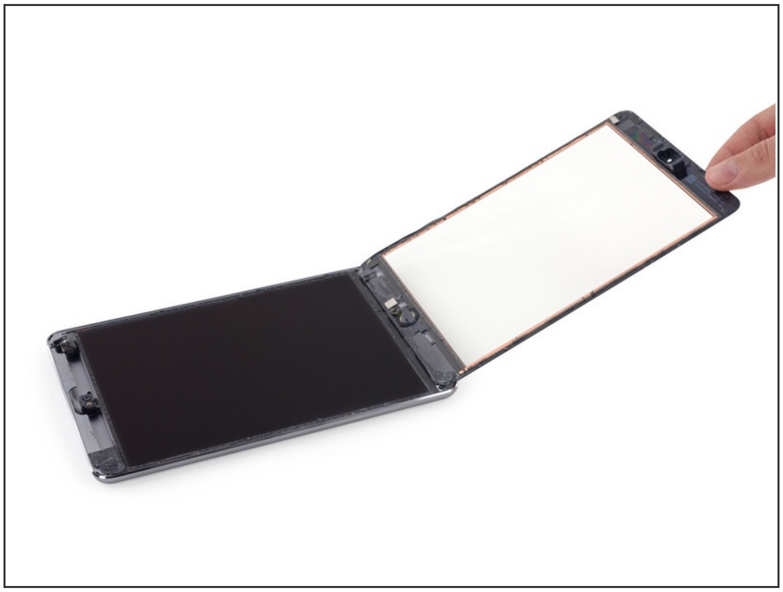
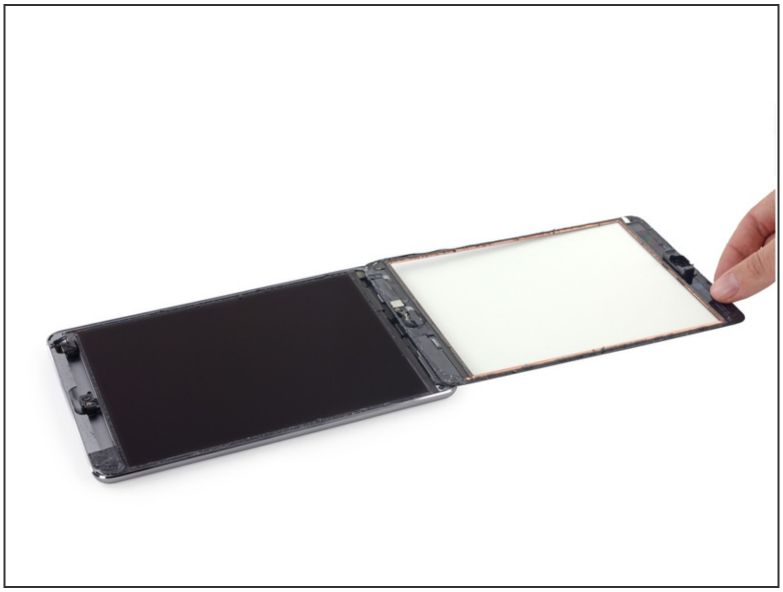
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Step 28

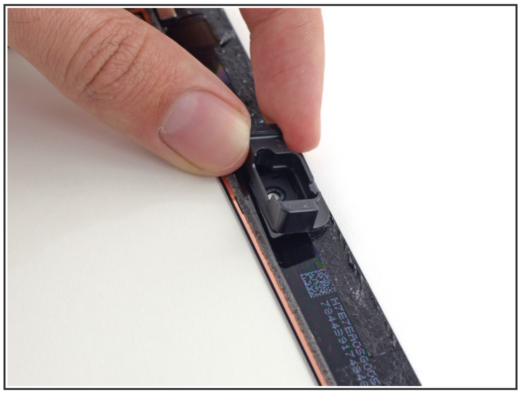
- Lift slowly and gently to further detach the adhesive along the lower edge.

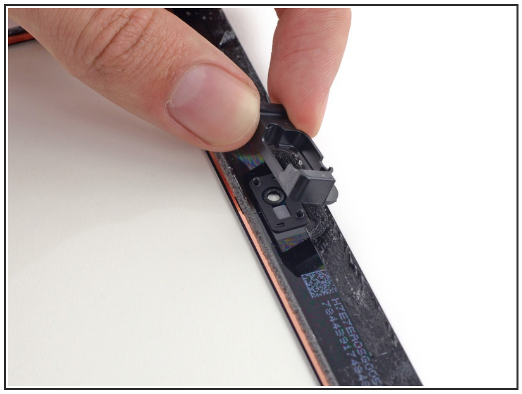
Step 29

- Once all of the adhesive has been separated, open the front glass like a page in a book and rest it on your workspace.

Step 30

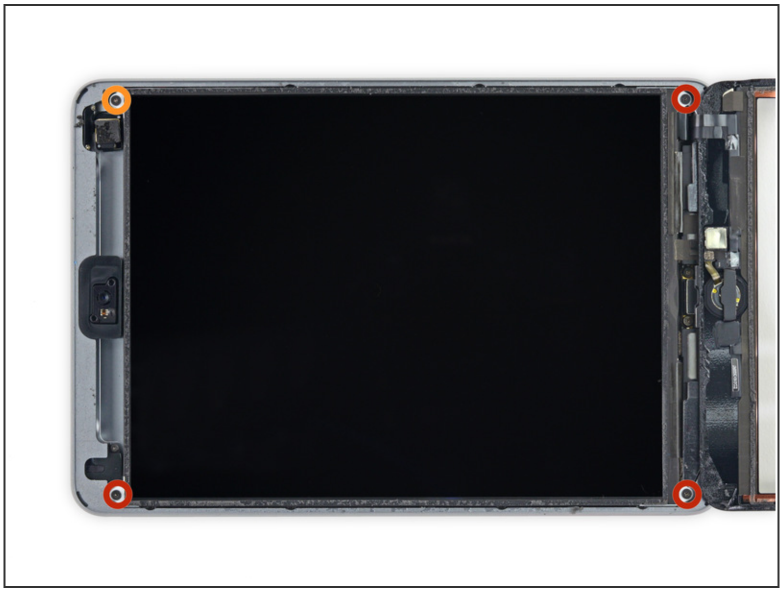


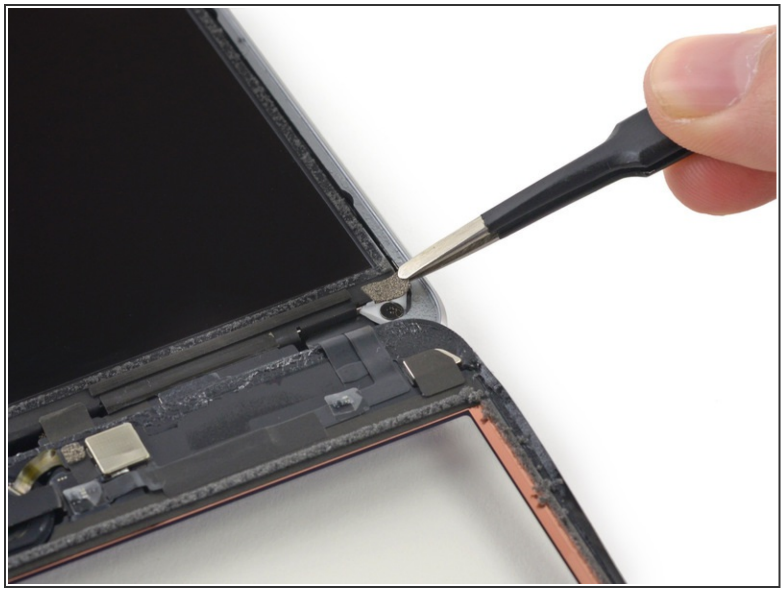




- The front-facing camera housing may stick to the front panel; peel up the housing and place it back over the camera to protect it.
- Rock the camera housing up on one edge to free it from the adhesive and remove it from the front panel.
- Return the front-facing camera housing to its recess in the rear case.

Step 31





- Remove the following Phillips #00 screws securing the LCD:
  - Three 3.3 mm screws
  - One 4.5 mm screw

ⓘ If there is tape covering any LCD screws, peel it up with tweezers.

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Step 32




- Do not attempt to fully remove the LCD. It is still connected to the iPad by several cables at the home button end. Lift only from the front-facing camera end.
- Insert the flat end of a spudger under the LCD between it and the LCD shield plate and lift gently.

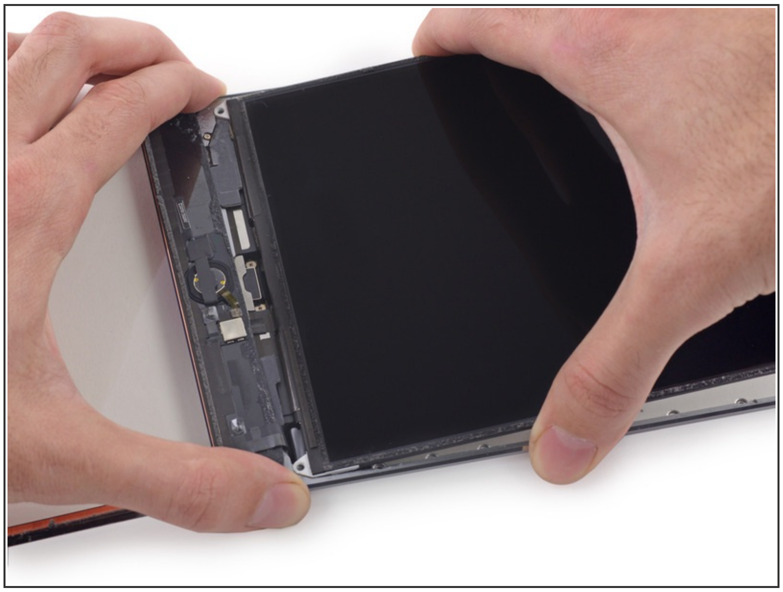
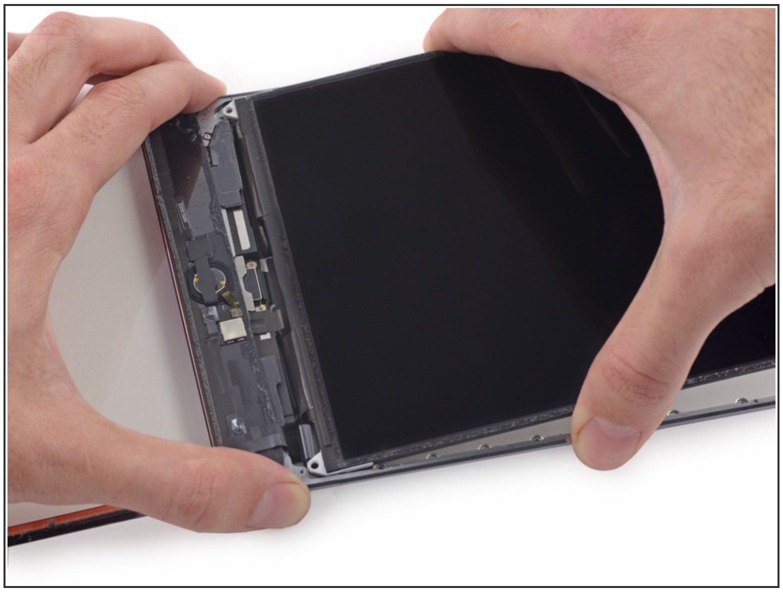
Step 33





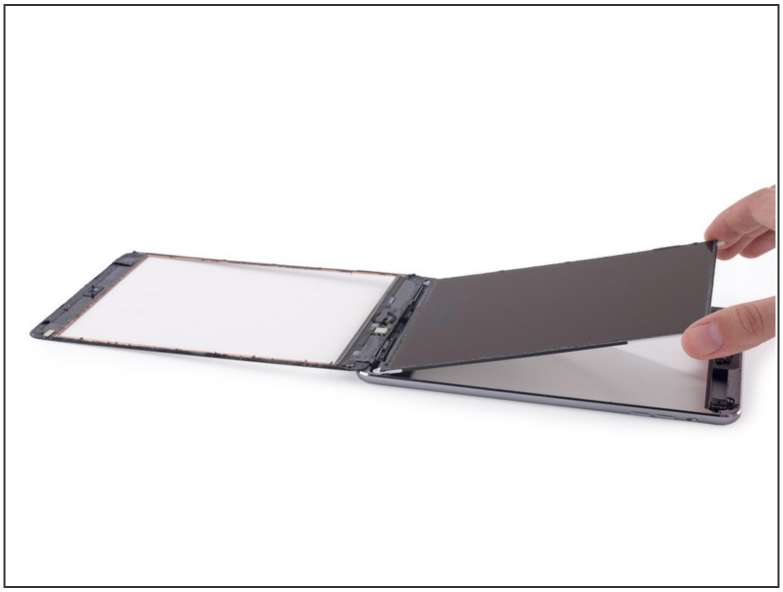
- The LCD is secured by mild adhesive that should be loosened before you flip the LCD up from its shield plate.
- Insert the spudger between the LCD and LCD shield plate and slide it to the far edge of the iPad.

Step 34

- Two wide strips of tape connect the LCD to the speakers.
- Hold the LCD with one hand, and the rear body of the iPad with the other.
- Do not attempt to fully remove the LCD from the iPad.
- Gently pull the LCD away from the speakers to separate the tape, being careful not to pull on the digitizer cable.

Step 35

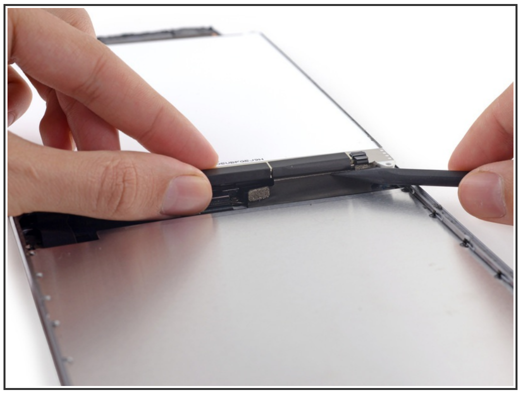


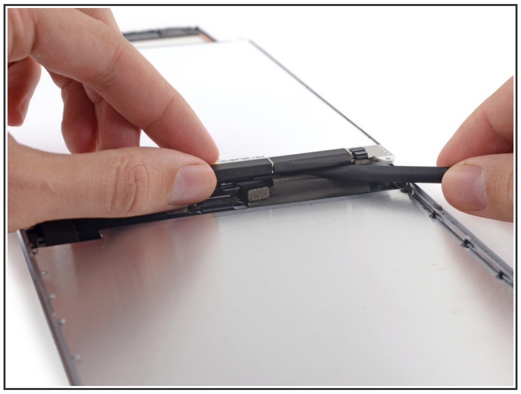


⚠ Do not attempt to fully remove the LCD. It is still connected to the iPad by several cables at the home button end. Lift only from the front-facing camera end.

- Flip the iPad LCD like a page in a book, lifting near the camera and turning it over the home button end of the rear case.
  - ⚠ Be gentle and keep an eye on the LCD cables as you flip the display over.
- Lay the LCD on the front panel glass to allow access to the display cables.

Step 36

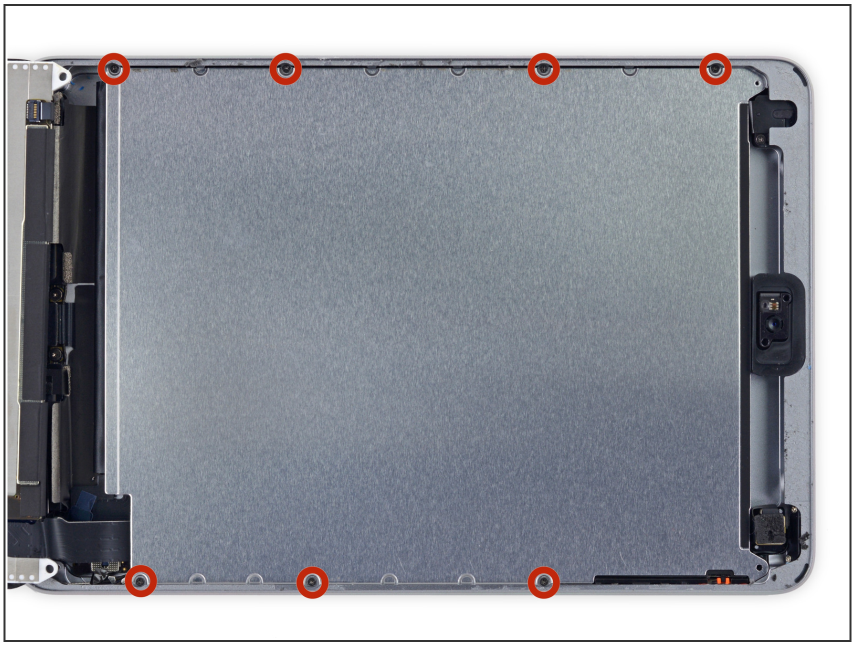






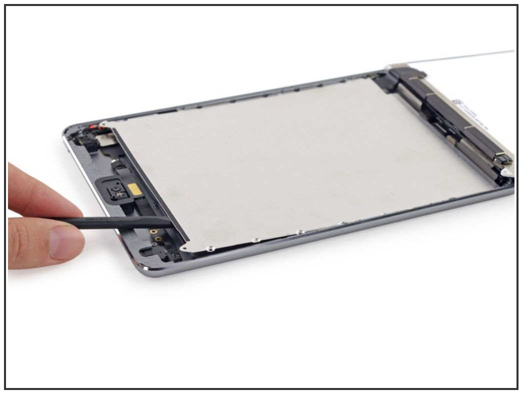
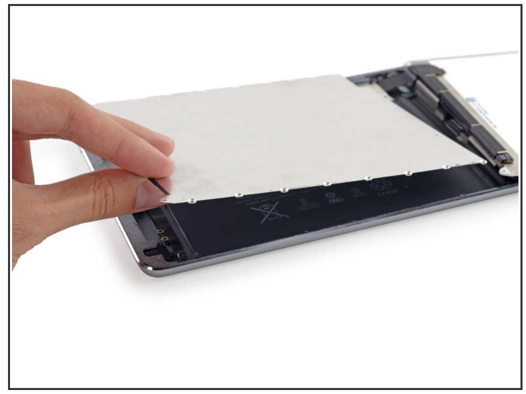
- Slide the tip of a spudger between the LCD and the adhesive tabs to free the display.
- Push gently between each of the two adhesive tabs; be careful not to damage any of the nearby cables.

Step 37



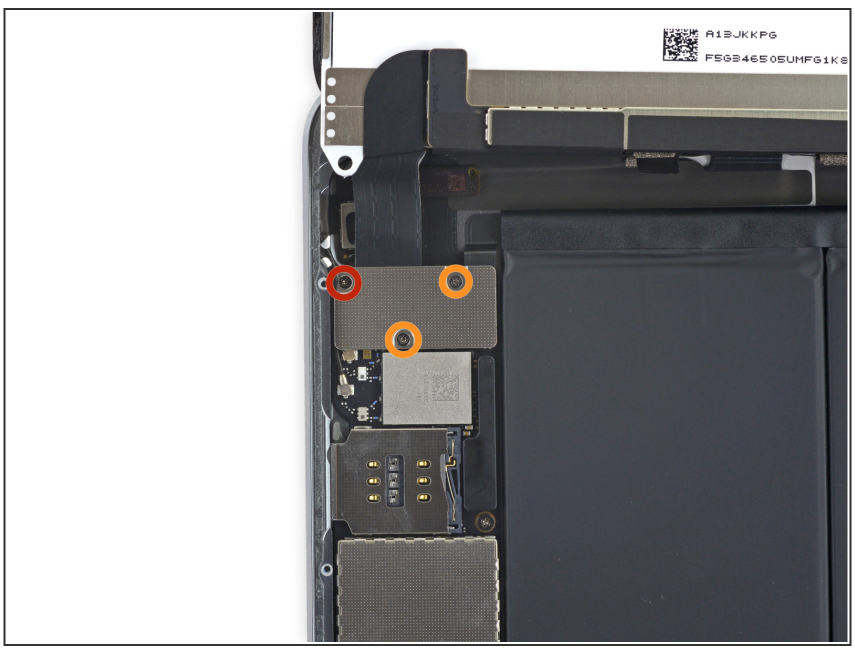
- Remove the seven 1.8 mm Phillips #00 screws from the LCD shield plate.

Step 38

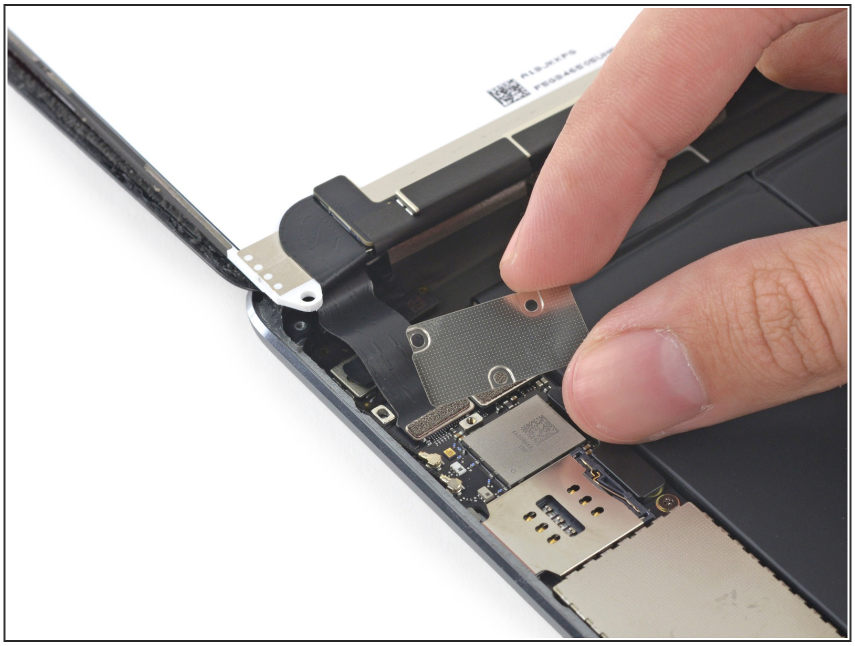
- Use the flat end of a spudger to pry the LCD shield plate up and out of the iPad.
- Remove the LCD shield plate.

Step 39 — LCD



- Remove the following Phillips #00 screws from the display cable bracket:
  - One 2.7 mm screw
  - Two 1.4 mm screws

Step 40



- Remove the display cable bracket from the iPad.

Step 41



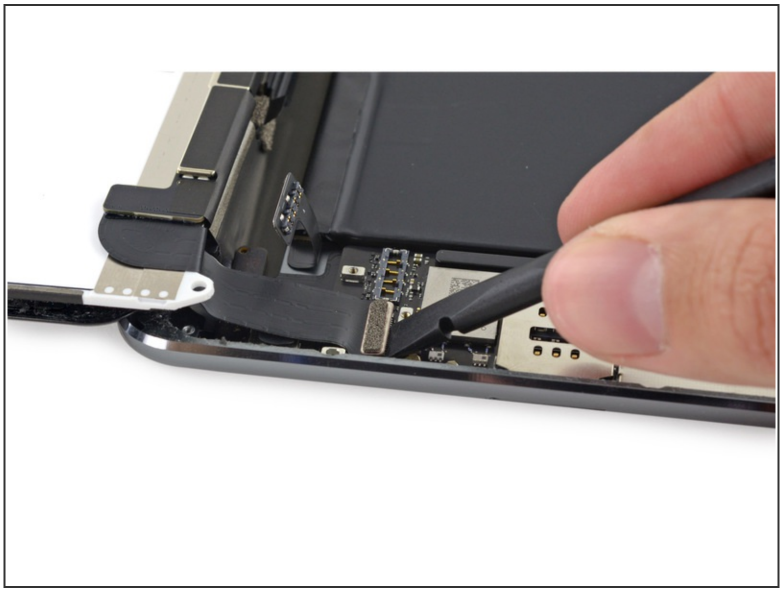


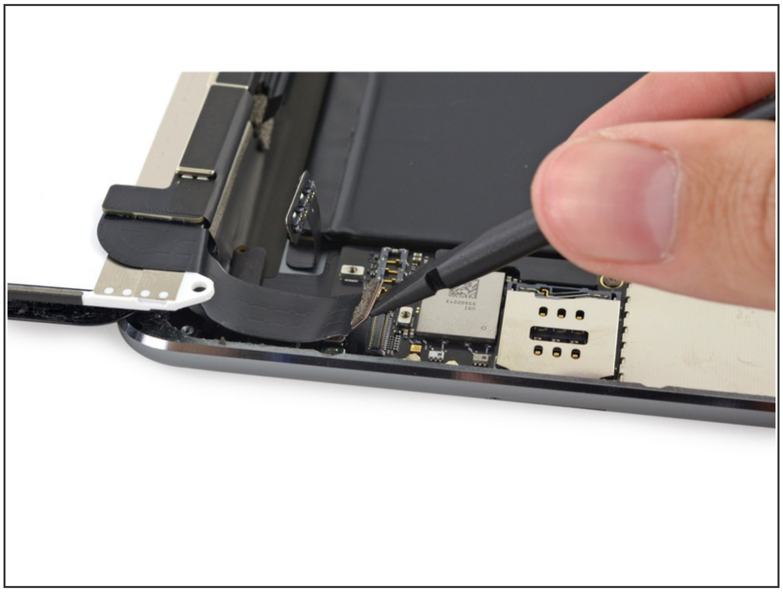


- Use the flat tip of a spudger to gently lift the battery connector up off its socket on the logic board.

⚠ Be very careful to only pry up on the battery connector and not on the socket itself. If you pry up on the logic board socket, you may break the connector entirely.

Step 42

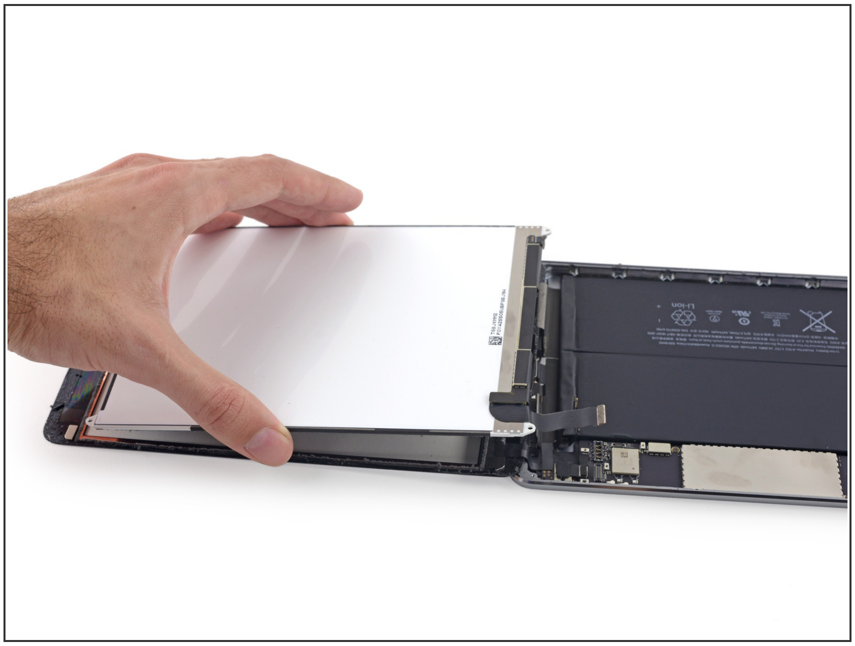




- Use spudger to lift the LCD connector up off its socket on the logic board.

⚠ Do not pry against the large IC next to the connector, or you may break it. Gently pry from the side of the connector as shown.

Step 43



- Lift and remove the LCD from the iPad Mini.

Step 44 — Left Antenna Cable



- Remove the following Phillips #00 screws from the left antenna:
  - One 2.6 mm screw
  - Two 1.5 mm screws

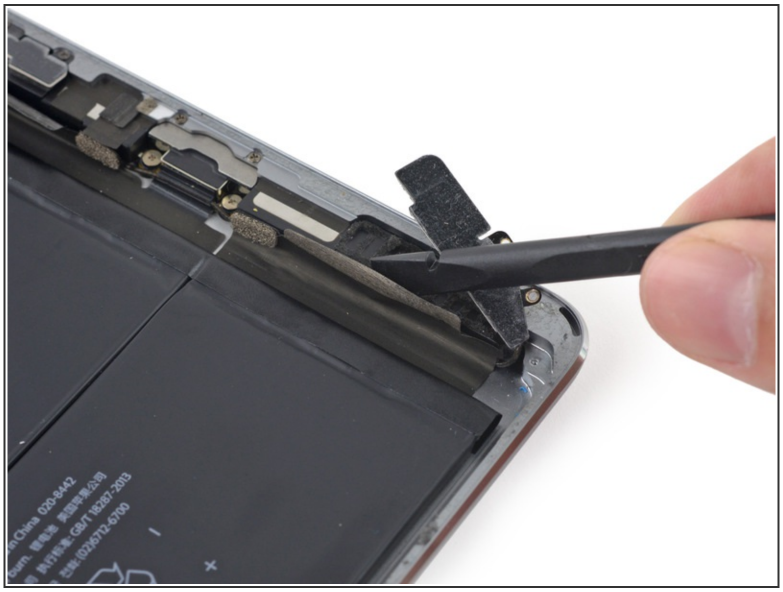
Step 45

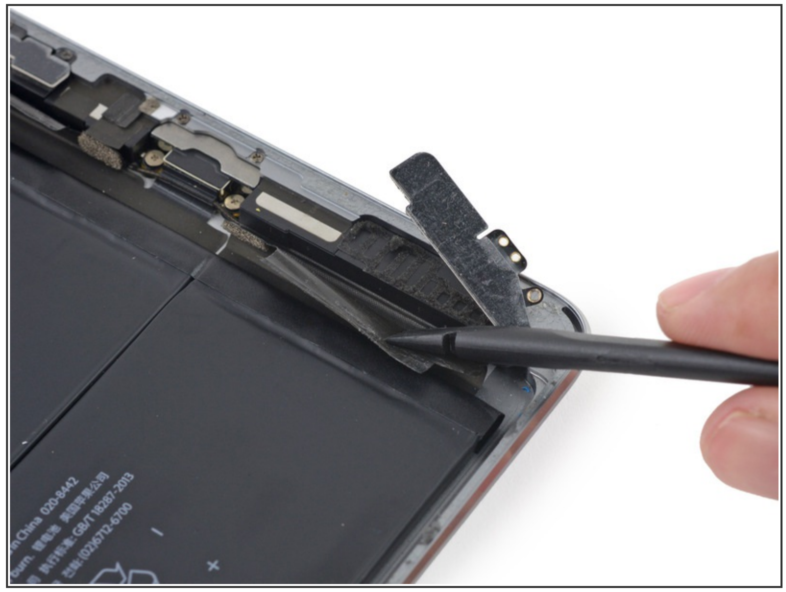




- Use the flat end of a spudger to loosen the foam adhesive securing the Wi-Fi antenna to the left speaker.

Step 46



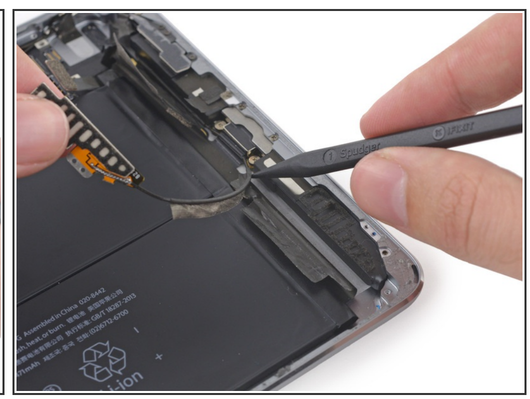


- Use the flat end of a spudger to fold the wide left-hand piece of tape away from the left speaker.

Step 47







- Use the tip of a spudger to pry the antenna cable tape up from the rear case of the iPad.
- Gently pull the antenna cable out of the way as you work along the piece of tape to free it and keep it from resealing.

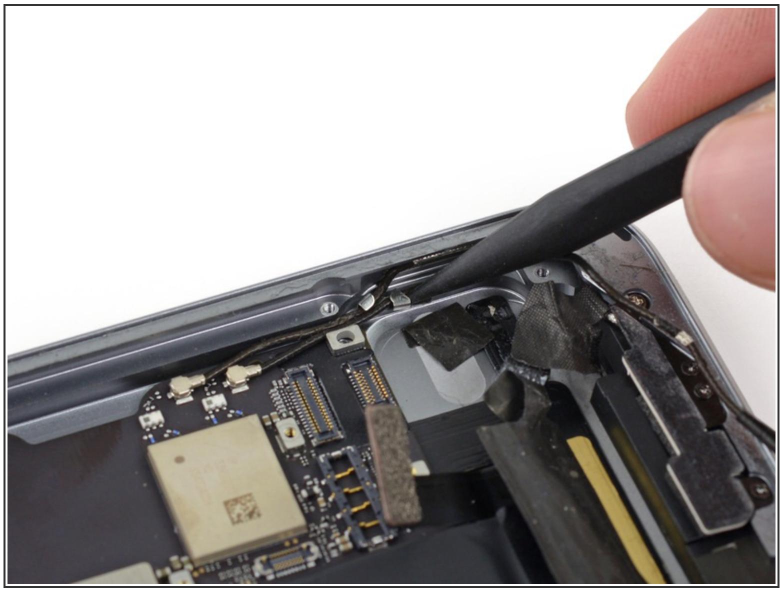
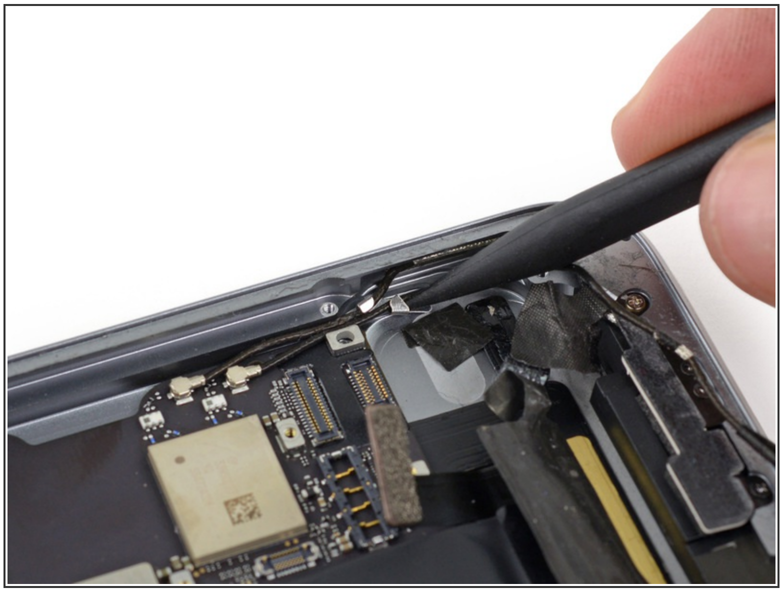
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Step 48




- Pull the antenna cable from the clip behind the Lightning connector.

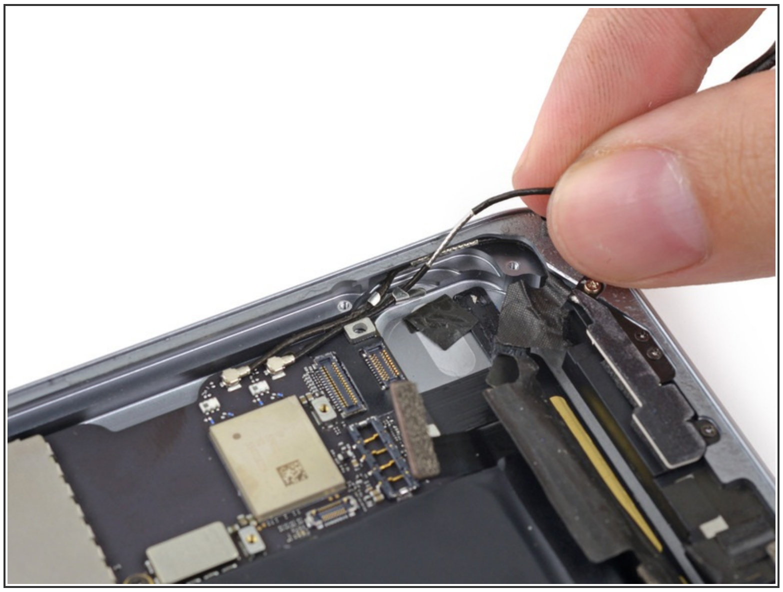
Step 49 — Left Antenna

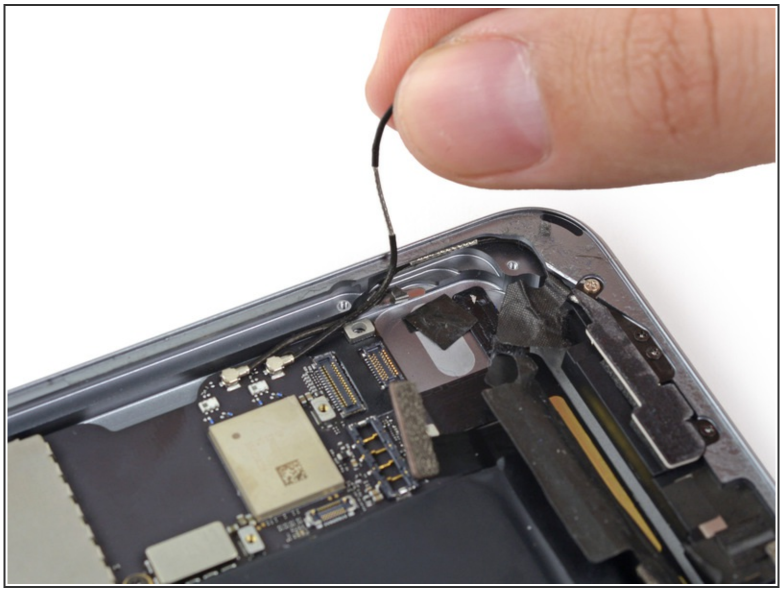



- Use the point of a spudger to pull the antenna cable clip toward the battery to allow access to the cables.

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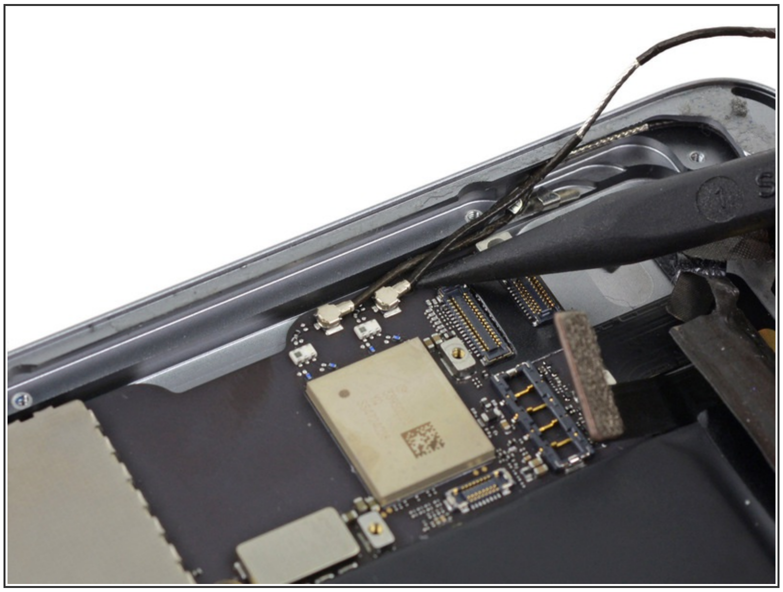
Step 50

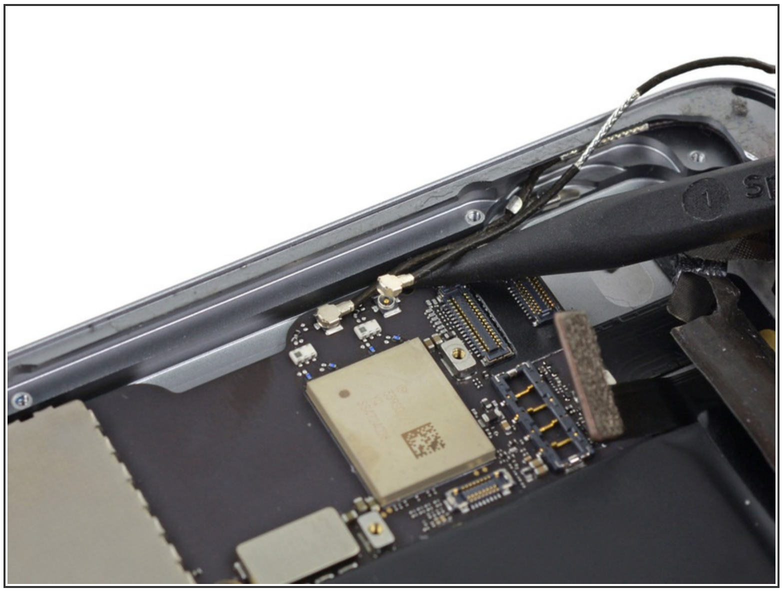




- De-route the antenna cable from the retaining clip.

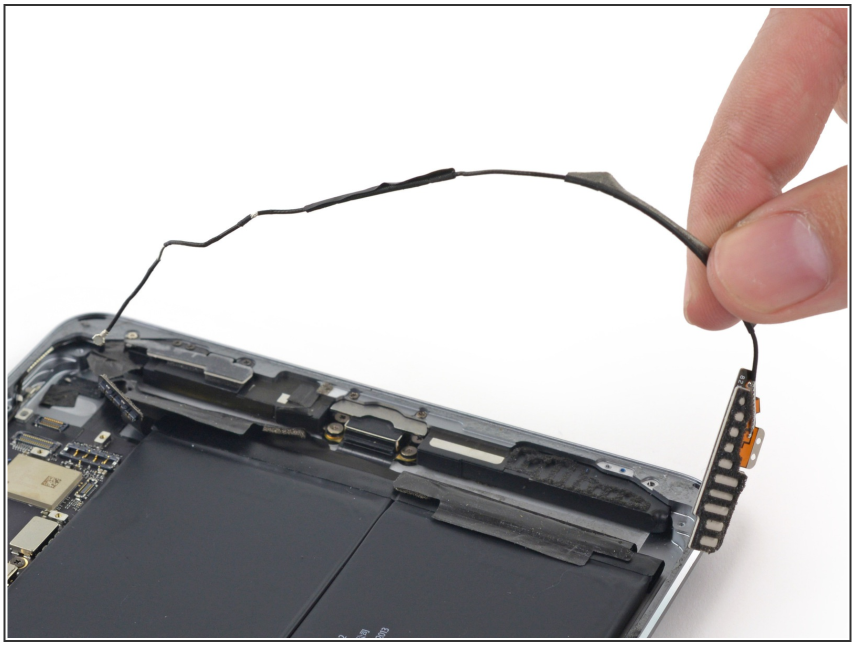
Step 51





- Use the point of a spudger to lift the left antenna cable connector straight up off of its socket on the logic board.

Step 52



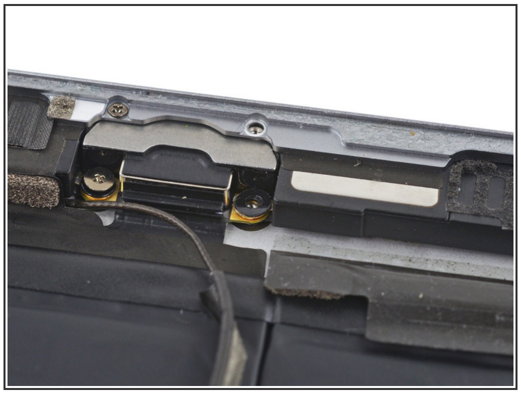
- Remove the left antenna from the iPad.

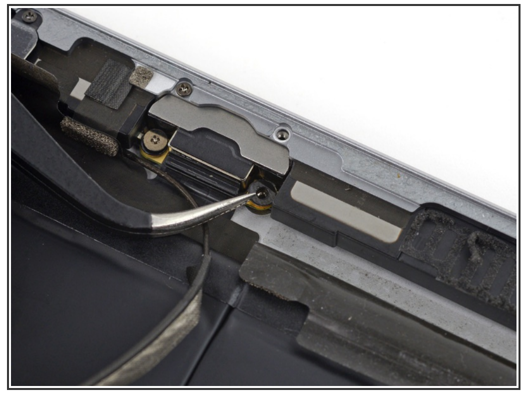
Step 53 — Left Speaker



- Remove the following Phillips #00 screws securing the left speaker to the rear case:
  - One 1.9 mm screw
  - One 1.7 mm screw

Step 54





- The screw through the Lightning connector has a small washer resting on the speaker contacts. Be sure not to misplace it.

- Remove the speaker contact washer from the iPad.

Step 55




- Insert the tip of a spudger into the gap between the left speaker and the bottom left side of the rear case.

- Push the spudger in to slide the speaker out from its recess in the rear case.

Step 56





- Push from the Lightning connector end with the flat end of a spudger to free the speaker from the lip of the rear case.

Step 57





- Remove the speaker from the iPad.
- During reassembly, make sure the two speaker contacts are placed above and below the screw hole on the Lightning connector.

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To reassemble your device, follow these instructions in reverse order.

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